

COURSE OUTCOME

ΞΥ721 - Production and Operations Management

1. GENERAL

SCHOOL	TECHNOLOGY		
DEPARTMENT	Department of Forestry, Wood Sciences and Design (FWSD)		
LEVEL	<i>Undergraduate</i>		
CODE	ΞΥ721	STUDENT SEMESTER	7th
COURSE TITLE	PRODUCTION AND OPERATIONS MANAGEMENT		
ACTIVITIES		WEEKLY HOURS	ECTS
	Lectures and Workshops	3	6
Type of course	Scientific		
PREREQUISITES:	none		
LANGUAGE TEACHING AND EXAMINATION:	Greek		
THE COURSE OFFERED TO STUDENTS ERASMUS	yes		
WEBPAGES COURSE (URL)			

2. LEARNING OUTCOMES

Learning Outcomes
<p>The aim of the course is to provide basic knowledge and skills on the effective strategic organization of the resources of small-medium-large enterprises, with a focus on the value chain of the woodworking industry and wood products (furniture, packaging, other objects, etc.).</p> <p>Upon successful completion of the course, students will have acquired basic knowledge in the following subjects:</p> <ul style="list-style-type: none"> • Creation of a new business, extensions, changes, and similar issues, within the industrial sectors of wood, wooden products and related materials • Analysis of the environment in which the new business will operate for the formulation of the appropriate strategy and decision-making regarding the choices of location, production strategy, buildings, etc. • Creation of production processes by choosing the appropriate type of production • Analysis and planning of production capacity • Selection of the appropriate equipment, auxiliary means, staffing needs as well as the conditions for strategic changes over time • Spatial planning and production flows • Designing production tasks, controls and performance indicators • Modern technologies and production systems based on ICT and competition
General Skills

Upon successful completion of the course, the students will be able to develop and cultivate basic professional and social skills:

- Search, analysis and synthesis of data and information, using the necessary technologies
- Adaptation to new situations
- Decision making in regard of issues related to strategic operational issues
- Autonomous work
- Teamwork
- Dynamic Capabilities
- Work in an interdisciplinary environment
- Individual initiatives
- Production of new ideas
- Sense of responsibility and commitment to creating a better future
- Promoting free, creative and inductive thinking
- Understanding economic and technological developments and their implications,
- Development of business perception and professional mentality.
- Adapting to new situations

3. COURSE CONTENT

The course focuses on issues related to:

- Introduction to systems for the production of products and services and their design
- Process of formulating a production strategy: internal and external environment of a woodworking business and wood products.
- Analysis and prediction of future developments - their impact on plant design. Versatility and adaptability.
- Analysis and design of production capacity - Selection of the appropriate size for a new installation.
- Identification of equipment needs
- Identification of needs for specialized personnel.
- Design and description of production processes - indicators of production process performance.
- Creation of processes of new products and services design in the industry.
- Spatial planning and flow. Choice of spatial layout - choice of location - categories of spatial layout
- Factory building, departments and transport.
- Design of the supply network. Storage of materials, distribution
- Designing production jobs, and organizing work.
- Techno-economic study of the construction of a unit of the sector.
- New production technologies. The virtual templates. Introduction to Industry4.0
- Case study of wood-furniture factories.

The exercises of the course take place one (1) hour per week. Attendance by students is mandatory by at least 50%. Exercises are theory practice to maximize theoretical knowledge, while case studies of successful projects are presented in the context of Production and Operations Management. Other practices used are constructive dialogue, resolution of questions and concerns, as well as the acquisition of conscious knowledge and application of basic principles of the subject of Production and Operations Management in practice.

From the 1st week of courses, students are given either a list of topics related to the syllabus of the course and are asked to prepare and essay or discuss a case study.

Directions, rich material and instructions are posted in the e-class portal.

The final assignment of the course includes, the essay, a public oral presentation on the selected topic, on a fixed date (usually the 12th week of lessons). The presentation lasts 10 minutes per person with 5' for questions. The teacher intervenes – if necessary – for commentary, observations, corrections. The grade of the homework counts for 20% of the final grade of the course. 80% comes from the exams at the end of semester.

4. TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY METHOD	<p>Face to face</p> <p>The course is organized in two parallel streams:</p> <ol style="list-style-type: none"> 1. Lectures, which analyze the concepts and methodologies that form the core of the course material 2. Workshops (studios), where students: get acquainted with methods and tools of creative thinking and analysis, synthesis of ideas and presentation skills 	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	<ul style="list-style-type: none"> • PC, ppt, projector • Use of a course website on the e-class platform for posting (a) notes, (b) internet links, (c) announcements, search tools and social networks • MSTEAMS platform 	
MANAGEMENT OF TEACHING	Activity	Semester Workload
	Lectures	26
	Workshops	13
	term assignment	20
	Short essays and case studies	20
	Individual and work study	71
	Course Total	150
STUDENT EVALUATION	<p>I. Written final exam (80%) including:</p> <ul style="list-style-type: none"> - Short-answered questions - exercises related to the subject of the course <p>II. Presentation of the term assignment (20%)</p>	

5. RECOMMENDED-BIBLIOGRAPHY

<ul style="list-style-type: none"> • Ξανθόπουλος Α., Κουλουριώτης Δ., Διοίκηση παραγωγής και επιχειρησιακών λειτουργιών, Εκδόσεις Τζιόλα, 2017 • Reid, R.D., Sanders N.R., Διοίκηση επιχειρησιακών λειτουργιών, Επιμέλεια Πρόδρομος Χατζόγλου, Εκδόσεις Πολιτεία, 2016 • Κακούρης Α. Διοίκηση Επιχειρησιακών Λειτουργιών, Εκδόσεις Προπομπός, 2016 • Slack, N., Chambers, S. και Johnston R., Διοίκηση Παραγωγής Προϊόντων και Υπηρεσιών (5η Αγγλική Έκδοση), Εκδόσεις Κλειδάριθμος, Αθήνα, 2010. • Αυλωνίτης Σ. «Οργάνωση και Διοίκηση Παραγωγής», εκδόσεις ΙΩΝ 2002. • Krajewski L., L. Pitzman "Operations management" 5th edition, Addison Wisley, 1998. • Λιαρμακόπουλος Λ. «Διοίκηση συστημάτων παραγωγής» Πάτρα 2001. • Αδαμίδης, Ε.Δ., Στρατηγική Διοίκηση της Παραγωγής, Εκδόσεις Κλειδάριθμος, Αθήνα, 2009.

- Δημητριάδης, Σ.Γ. και Μιχιώτης, Α.Ν., Διοίκηση Παραγωγικών Συστημάτων: Βασικές Θεωρητικές Αρχές και Εφαρμογές στη Λήψη Επιχειρηματικών Αποφάσεων, Εκδόσεις Κριτική, Αθήνα, 2007.

Scientific Journals:

- *Journal of Operations Management*
- *Journal of Operations and Production Management*
- *International Journal of Operations and Production Management*
- *MIT Sloan Management Review*
- *Journal of Manufacturing Technology Management*
- *International journal of production research*
- *International Journal of Production Research*
- *Strategic Management Journal*
- *Production Planning & Control*
- *Journal of Operations Management*
- *Journal of Cleaner Production*
- *Journal of Management Studies*
- *Production Planning & Control*
- *Business Process Management Journal*